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EXAMINER
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4173	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/588,110	KUBO ET AL.
	Examiner	Art Unit	
	AJAY P. CATTUNGAL	4173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2006*.

2a)☐ This action is FINAL.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date *07/31/06*.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This office action has been examined. Claims 1-14 are pending.

Claim Objections

2.   Claims 2-8 and 11-14 are objected to because of the following informalities:

These claims improperly refer back to an independent claim, and in effect, portray

themselves as independent claims. The phrase "A packet-relay unit" causes this lack of

clarity. This phrase appears in the first line of claims 2-8 and 11-14 and is improper in

each case. A proper phrase would be "The packet-relay unit". Appropriate correction is

required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Claims 1, 5-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gotoh

et al (US 2003/0095551) in view of Deloume et al (EP 1303156 A1).

Re claim 1, Gotoh et al, teaches a packet-relay unit comprising: a first network

interface unit (See fig 2 item 25) connected to first communication equipment (See

Fig 1 item 21) through a first transmission medium (See Fig 1 item 23); a second

network interface unit (See fig 2 item 28) connected to second communication

equipment (See Fig 1 item 3) through a second transmission medium (See Fig 2 To

interconnection link 4); wherein said second network interface unit includes: a

classifying unit (See Fig 2 item 29) operable to classify the packets in accordance with

settings of said function-setting switch; a priority control unit (See Fig 2 item 29 In this

unit the classification and prioritization of packets happen at the same unit) operable to

provide priority control over the packets such that the packets outputted from said

second network interface unit are preferentially treated (Para 49 lines 1-5) at a

communication zone between said second network interface unit and the second

communication equipment; and a transceiving unit (See Fig 2 item 28) operable to

perform packet transmitting and receiving through the second transmission medium

(See Fig 2 To interconnection link 4). Gotoh et al does not teach a function-setting

switch operable to set a quality guarantee to packets fed into said first network

interface unit from the first communication equipment, wherein when said function-

setting switch is set to render the quality guarantee operative, said classifying unit

transfers the packets from said first network interface unit to said priority control unit,

and said priority control unit provides the priority control over the packets transferred

from said classifying unit, whereby the packets subjected to the priority control are transferred to said transceiving unit from said priority control unit, and wherein when said function-setting switch is set to render the quality guarantee inoperative, said classifying unit transfers the packets from said first network interface unit to said transceiving unit. Where in the said classifying unit transfers the packets from said first network interface unit to said priority control unit, and said priority control unit provides the priority control over the packets transferred from said classifying unit, whereby the packets subjected to the priority control are transferred to said transceiving unit from said priority control unit. Classifying unit transfers the packets from said first network interface unit to said priority control unit, and said priority control unit provides the priority control over the packets transferred from said classifying unit, whereby the packets subjected to the priority control are transferred to said transceiving unit from said priority control unit, (Para 40-43 and Fig 2 teaches how the packet is passed through the routing unit, classification unit, prioritization unit and the packet is transmitted according to the protocol that the packet is using) However Deloume et al teaches a function-setting switch (Para 25 lines 1-7) operable to set a quality guarantee to packets fed into said first network interface unit from the first communication equipment, wherein when said function-setting switch is set to render the quality guarantee operative, (Para 36 lines 1-5) and wherein when said function-setting switch is set to render the quality guarantee inoperative (Para 38 lines 1-5), said classifying unit transfers the packets from said first network interface unit to said transceiving unit (Para 38 lines 1-5 teaches when the priority control is reduced the

packets is put in a non priority queue from where it is passed on for transmission to the

communication unit) . It would have been obvious to one having ordinary skill in the art

at the time of the invention to use the packet classification and prioritization method of

Gotoh et al with the man machine interface to adjust the quality of service method of

Deloume et al in order to provide a packet transmission apparatus which performs

priority control with excellent transmission quality.

Re claim 5, Gotoh et al. in view of Deloume et al. teaches the claimed invention

as set forth in claim 1 above. Deloume et al. teaches a packet-relay unit, wherein said

function-setting switch performs three-staged settings of the quality guarantee to the

packets from said first network interface unit (Para 36 lines 1-5 teaches of a function

setting switch which lets the used input different values for the quality of service and

get results accordingly). Deloume et al. does not teach a packet-relay unit, wherein

when said function-setting switch performs a first-staged setting of the quality

guarantee, said classifying unit transfers the packets from said first network interface to

said priority control unit, and said priority control unit provides the priority control over

the packets transferred from said classifying unit, whereby the packets subjected to the

priority control are transferred to said transceiving unit from said priority control unit,

wherein when said function-setting switch performs a second-staged setting of the

quality guarantee, said classifying unit transfers, to said priority control unit, a

packet that satisfies a predetermined classifying condition among the packets from

said first network interface unit, but transfers remnants of the packets from said first

network interface unit to said transceiving unit, and said priority control unit provides

the priority control over the packet that is transferred from said classifying unit and that

satisfies the predetermined classifying condition, whereby the packet subjected to the

priority control is transferred to said transceiving unit from said priority control unit, and

wherein when said fictions-setting switch performs a third-staged setting of the quality

guarantee, said classifying unit transfers the packets from said first network interface

unit to said transceiving unit. However Gotoh et al. teaches a packet-relay unit, wherein

when said function-setting switch performs a first-staged setting of the quality

guarantee, said classifying unit transfers the packets from said first network interface to

said priority control unit, and said priority control unit provides the priority control over

the packets transferred from said classifying unit, whereby the packets subjected to the

priority control are transferred to said transceiving unit from said priority control unit

(Para 40 lines 7-13 and Para 43 and Fig 2 teaches a packet is received from the

receiving unit, which is then classified, prioritized accordingly and transmitted), wherein

when said function-setting switch performs a second-staged setting of the quality

guarantee, said classifying unit transfers, to said priority control unit, a packet that

satisfies a predetermined classifying condition among the packets from said first

network interface unit, but transfers remnants of the packets from said first network

interface unit to said transceiving unit, and said priority control unit provides the priority

control over the packet that is transferred from said classifying unit and that satisfies

the predetermined classifying condition, whereby the packet subjected to the priority

control is transferred to said transceiving unit from said priority control unit (See Fig 2

Para 40 lines 7-13 and Para 43 teaches packets are received from the receiving station

then classified according to preset conditions and packet that meet the priority

conditions are put in the priority queue and the packets that does not meet the priority

conditions are put in a not priority queue), and wherein when said fictions-setting

switch performs a third-staged setting of the quality guarantee, said classifying unit

transfers the packets from said first network interface unit to said transceiving unit (See

Fig 2 here bypassing a priority control unit is similar to putting all the packets received

by the unit, in a single queue, regardless of the priority. In the reference this could be

achieved if all the packets received, is treated with either high priority or low priority). It

would have been obvious to one having ordinary skill in the art at the time of the

invention to use the packet classification and prioritization method of Gotoh et al with

the man machine interface to adjust the quality of service method of Deloume et al in

order to provide a packet transmission apparatus which performs priority control with

excellent transmission quality.

Re claim 6, note that Deloume et al teaches a packet-relay unit, further

comprising: a priority control-setting switch, wherein said priority control unit provides a

different type of priority control over the packets from said first network interface unit in

accordance with each setting of said priority control-setting switch (Para 25 liens 1-7

and Para 19).

Re claim 7, note that Deloume et al teaches a packet-relay unit, wherein said

priority control-setting switch (Para 25 lines 1-7) is set to allow said priority control unit

to perform at least one of back-off setting (Para 15 Delay parameter) , encoding rate

setting (Para 15 Throughput parameter) , communication mode selection, and

acknowledgement signal selection, by way of the priority control to be provided by said

priority control unit over the packets from said first network interface unit (Para 32

teaches that the system is not bound to the four parameters the reference teaches but

the user has the option to, fewer or greater number of parameters).

Re claim 8, note that Deloume et al. teaches a packet-relay unit, wherein said

function-setting switch is a physical switch disposed at a position where appearance of

said function-setting switch is viewable (Para 25).

Re claim 9, note that Deloume et al. teaches a packet-relay unit, wherein said

priority control-setting switch is a physical switch disposed at a position where

appearance of said priority control-setting switch is viewable (Para 25 teaches a man

machine interface which is a actual physical switch, using which, a person can change

the priority control setting, which is one of the many parameter that is handled by the

switch).

Re claim 10, Gotoh et al. teaches a packet-relay unit comprising of a first network

interface unit (See fig 2 item 25) connected to first communication equipment (See Fig

1 item 21) through a first transmission medium (See Fig 1 item 23); a second network

interface unit (See fig 2 item 28) connected to second communication equipment (See

Fig 1 item 3) through a second transmission medium (See Fig 2 To interconnection link

4); a marking unit operable (See Fig 2 item 29 Packet classification section) to set

priority to the packets from said first network interface unit in accordance with settings

of said first switch, whereby the packets having the priority set thereto are transferred

to said second network interface unit from said marking unit. Gotoh et al. does not

disclose, a first switch operable to set a quality guarantee to packets fed into said first network interface unit from the first communication equipment; wherein when said first switch is set to render the quality guarantee operative, said marking unit sets increased priority to the packets from said first network interface unit, wherein when said first switch is set to render the quality guarantee inoperative, said marking unit sets reduced priority to the packets from said first network interface unit. However Deloume et al. teaches a first switch operable to set a quality guarantee to packets fed into said first network interface unit from the first communication equipment (Para25 lines 1-7 and Para 36 lines 1-5); wherein when said first switch is set to render the quality guarantee operative, said marking unit sets increased priority to the packets from said first network interface unit (Para 37), wherein when said first switch is set to render the quality guarantee inoperative, said marking unit sets reduced priority to the packets from said first network interface unit (Para 38). It would have been obvious to one having ordinary skill in the art at the time of the invention to use the packet classification and prioritization method of Gotoh et al with the man machine interface to adjust the quality of service method of Deloume et al in order to provide a packet transmission apparatus which performs priority control with excellent transmission quality.

Re claim 11, note that Gotoh et al. discloses a packet-relay unit, wherein said second network interface unit including: a classifying unit (See Fig 2 item 29) operable to classify the packets in accordance with settings of said function-setting switch; a priority control unit (See Fig 2 item 29 In this unit the classification and prioritization of

packets happen the same unit) operable to provide priority control over the packets

such that the packets outputted from said second network interface unit are

preferentially treated (Para 49 lines 1-5) at a communication zone between said

second network interface unit and the second communication equipment; and a

transceiving unit (See Fig 2 item 28) operable to perform packet transmitting and

receiving through the second transmission medium (See Fig 2 To interconnection link

4). Wherein said classifying unit transfers the packets having the increased

priority set thereto to said priority control unit, but transfers remnants of

the packets from said first network interface unit to said transceiving unit (See Fig 2

Para 40 lines 7-13 and Para 43 teaches packets are received from the receiving station

then classified according to preset conditions and packet that meet the priority

conditions are put in the priority queue and the packets that does not meet the priority

conditions are put in a not priority queue), wherein said priority control unit provides the

priority control over the packets that are transferred from said classifying unit and that

have the increased priority set to the packets, whereby the packets subjected to the

priority control are transferred to said transceiving unit from said priority control unit

(Para 40 lines 7-13 and Para 43 and Fig 2 teaches a packet is received from the

receiving unit, which is then classified, prioritized accordingly and transmitted).Note

that Deloume et al. discloses wherein when said first switch is set to render the quality

guarantee operative, said marking unit sets increased priority to the packets from said

first network interface unit, whereby the packets having the increased priority set

thereto are transferred to said classifying unit from said marking unit (Para 38 teaches

how the quality guarantee is attained by increasing the quality of service parameters),

wherein when said first switch is set to render the quality guarantee inoperative, said

marking unit sets reduced priority to the packets from said first network interface unit,

whereby the packets having the reduced priority set thereto are transferred to said

classifying unit from said marking unit (Para 38 teaches how the quality guarantee is

set inoperative by decreasing the quality of service, it should the noted that the quality

of service can be deceased to a level where it does not exist or it could be set to any

value in between)

Re claim 12, Note that Deloume et al. teaches a packet-relay unit, wherein said

first switch performs three-stage settings of the quality guarantee to the packets from

said first network interface unit (Para 36 lines 1-5 teaches of a function setting switch

which lets the used input different values for the quality of service and get results

accordingly). Note that Gotoh et al. teaches a packet-relay unit, wherein when said first

switch performs a first-staged setting of the quality guarantee, said marking unit sets

increased priority to the packets from the first network interface unit, whereby the

packets having the increased priority set thereto are transferred to said classifying unit

from said marking unit (See Fig 6 teaches of a marking unit (i.e. Identifier Assigning

Section) which marks the packets according to the quality of service agreements and

passes it on to the classifying unit (i.e. Packet Classification Section)) , wherein when

said first switch performs a second-staged setting of the quality guarantee, said

marking unit sets increased priority to a packet that satisfies a predetermined

classifying condition among the packets from said first network interface unit, whereby

the packet having the increased priority set thereto is transferred to said classifying unit

from said marking unit, but said marking unit sets reduced priority to remnants of the

packets from said first network interface unit, whereby the remnants having the

reduced priority set thereto are transferred to said classifying unit from said marking

unit (See Fig 6 teaches of a marking unit (i.e. Identifier Assigning Section) which marks

the packets according to the quality of service agreements and passes it on to the

classifying unit (i.e. Packet Classification Section). The classification unit according to

the marking of the marking unit put the packets in the priority queue or the non priority

queue accordingly), and wherein when said first switch performs a third-staged setting

of the quality guarantee, said marking unit sets reduced priority to the packets from

said first network interface unit, whereby the packets having the reduced priority set

thereto are transferred to said classifying unit from said marking unit (See Fig 6

teaches of a marking unit (i.e. Identifier Assigning Section) which marks the packets

according to the quality of service agreements and passes it on to the classifying unit

(i.e. Packet Classification Section)).

Re claim 13, Note that Deloume et al. discloses a packet-relay unit, further

comprising: a second switch operable to set the classifying condition for use in packet

classification, wherein when said first switch performs the second-staged

setting of the quality guarantee, said marking unit classifies the packets from said first

network interface unit in accordance with the classifying condition set by said second

switch (Para 14 lines 1-4 teaches of the functions of the first switch which has four

different settings. Para 32 and Para 36 lines 1-5 teach the functions of the second

switch which has a bunch of parameters that are chosen by the user which could be modified to affect the quality of service settings).

Re claim 14, Note that Gotoh et al. teaches a packet-relay unit, wherein said second switch sets the classifying condition based on at least one of a DSCP (Para 4 lines 11-14), a TOS (Para 5 lines 4-6), a VLAN priority bit (Para 8 lines 6-10), a MAC address, an IP address, a port number (Para 45 lines 8-12) , a protocol number (Para 46 lines 10-13), and a flow label.

5.   Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gotoh et al (US 2003/0095551) in view of Deloume et al (EP 1303156 A1) and in further view of Mansfield (US 6882714).

Re claim 2, Gotoh et al. in view of Deloume et al. discloses the claimed invention as set forth in claim 1 above. Gotoh et al. in view of Deloume et al. does not teach a packet-relay unit, wherein the first transmission medium differs from the second transmission medium. However Mansfield et al. discloses a packet-relay unit, wherein the first transmission medium differs from the second transmission medium (Col 3 lines 3-9 and lines 16-19). It would have been obvious to one having ordinary skill in the art, at the time of the invention to use the classification and prioritization method with adjustable quality of service of Gotoh et al. in view of Deloume et al with the multiple transmission mediums of Mansfield et al. in order to provide a packet transmission apparatus which performs priority control with excellent transmission quality.

Re claim 3, Gotoh et al. in view of Deloume et al. discloses the claimed invention as set forth in claim 1 above. Gotoh et al. in view of Deloume et al. does not teach a

packet-relay unit, wherein the first transmission medium is a hardwired medium, but the second transmission medium is a wireless medium. However Mansfield et al. discloses a packet-relay unit, wherein the first transmission medium is a hardwired medium, but the second transmission medium is a wireless medium (Col 3 lines 3-9 and lines 16-19). It would have been obvious to one having ordinary skill in the art, at the time of the invention to use the classification and prioritization method with adjustable quality of service of Gotoh et al. in view of Deloume et al with the multiple transmission mediums of Mansfield et al. in order to provide a packet transmission apparatus which performs priority control with excellent transmission quality.

Re claim 4, Gotoh et al. in view of Deloume et al. discloses the claimed invention as set forth in claim 1 above. Gotoh et al. in view of Deloume et al. does not teach a packet-relay unit, wherein the first transmission medium is a hardwired medium, but the second transmission medium is a balanced transmission channel for use in power line communication. However Mansfield et al. discloses a packet-relay unit, wherein the first transmission medium is a hardwired medium, but the second transmission medium is a balanced transmission channel for use in power line communication (Col 3 lines 3-9 and lines 16-19). It would have been obvious to one having ordinary skill in the art, at the time of the invention to use the classification and prioritization method with adjustable quality of service of Gotoh et al. in view of Deloume et al with the multiple transmission mediums of Mansfield et al. in order to provide a packet transmission apparatus which performs priority control with excellent transmission quality.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to AJAY P. CATTUNGAL whose telephone number is

(571)270-7525. The examiner can normally be reached on Monday- Friday 7:30 - 5:00,

Alternating Fridays OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jinhee Lee can be reached on 571-292-1977. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. P. C./   /Yemane Mesfin/
Examiner, Art Unit 4173   Examiner, Art Unit 2444